WHAT IS CLAIMED IS:

1. A drive control apparatus for a display panel comprising:

a drive circuit for supplying a modulation signal to a modulation wiring of the display panel, having a modulator for generating the modulation signal in which at least a pulse width thereof is modulated based on inputted luminance data;

a selection circuit for selecting a scanning wiring of the display panel; and

a modulation clock supplying circuit for supplying a modulation clock serving as a criterion for determining the pulse width of the modulation signal to the modulator, wherein

the modulator modulates the pulse width of the modulation signal in synchronization with the modulation clock,

the modulation clock supplying circuit supplies the modulation clock which has a frequency deviation to spread harmonics spectrum as compared to a virtual source clock of a constant frequency, and

the frequency deviation is so restricted that, if at least two pixels corresponding to two adjacent scanning wirings are displayed based on arbitrary same luminance data, a difference between a display luminance of one pixel in a specified period and a display luminance of the other pixel in the specified period is less than or equal to a tolerable

value determined by the luminance data.

2. A drive control apparatus for a display panel comprising:

a drive circuit for supplying a modulation signal to a modulation wiring of the display panel, having a modulator for generating the modulation signal in which at least a pulse width thereof is modulated based on inputted luminance data;

a selection circuit for selecting a scanning wiring of the display panel; and

a modulation clock supplying circuit for supplying a modulation clock serving as a criterion for determining the pulse width of the modulation signal to the modulator, wherein

the modulator modulates the pulse width of the modulation signal in synchronization with the modulation clock,

the modulation clock supplying circuit supplies the modulation clock which has a frequency deviation to spread harmonics spectrum as compared to a virtual source clock of a constant frequency, and

the frequency deviation is so restricted that, if an arbitrary pixel is displayed based on arbitrary same luminance data, a difference between a display luminance in a specified period obtained by the virtual source clock and a display luminance in the specified period obtained by the modulation clock is less than or equal to a tolerable value determined by the luminance data.

3. A drive control apparatus for a display panel comprising:

a drive circuit for supplying a modulation signal to a modulation wiring of the display panel, having a modulator for generating the modulation signal in which at least a pulse width thereof is modulated based on inputted luminance data;

a selection circuit for selecting a scanning wiring of the display panel; and

a modulation clock supplying circuit for supplying a modulation clock serving as a criterion for determining the pulse width of the modulation signal to the modulator, wherein

the modulator modulates the pulse width of the modulation signal in synchronization with the modulation clock, and

the modulation clock supplying circuit supplies the modulation clock which has a frequency deviation to spread harmonics spectrum as compared to a virtual source clock of a constant frequency and includes a gradation converter for converting a gradation of the luminance data in order to compensate for changes in a display luminance level due to the frequency deviation.

4. A drive control apparatus for a display panel according to claim 3, wherein the frequency deviation is so restricted that, if at least two pixels corresponding to two adjacent scanning wirings are displayed based on arbitrary same luminance data, a difference between a display

luminance of one pixel in a specified period and a display luminance of the other pixel in the specified period is less than or equal to a tolerable value determined by the luminance data.

5. A drive control apparatus for a display panel according to claim 3, wherein the frequency deviation is so restricted that, if an arbitrary pixel is displayed based on arbitrary same luminance data, a difference between a display luminance in a specified period obtained by the virtual source clock and a display luminance in the specified period obtained by the modulation clock is less than or equal to a tolerable value determined by the luminance data.

6. A drive control apparatus for a display panel according to claim 1, wherein the display luminance of the specified period is a luminance in a single frame period or an average luminance of two or more frame periods.

7. A drive control apparatus for a display panel according to claim 2, wherein the display luminance of the specified period is a luminance in a single frame period or an average luminance of two or more frame periods.

8. A drive control apparatus for a display panel according to claim 4, wherein the display luminance of the specified period is a luminance in a single frame period or an average luminance of two or more frame periods.

9. A drive control apparatus for a display panel according to claim 5, wherein the display luminance of the specified period is a luminance in a single frame period

or an average luminance of two or more frame periods.

10. A drive control apparatus for a display panel according to claim 1, wherein a phase of the modulation clock is changed in synchronization with a selection period of the scanning wiring.

11. A drive control apparatus for a display panel according to claim 2, wherein a phase of the modulation clock is changed in synchronization with a selection period of the scanning wiring.

12. A drive control apparatus for a display panel according to claim 3, wherein a phase of the modulation clock is changed in synchronization with a selection period of the scanning wiring.

13. A drive control apparatus for a display panel according to claim 10, wherein the modulation clock is so constructed that differential values of its cycles are continuous.

14. A drive control apparatus for a display panel according to claim 11, wherein the modulation clock is so constructed that differential values of its cycles are continuous.

15. A drive control apparatus for a display panel according to claim 12, wherein the modulation clock is so constructed that differential values of its cycles are continuous.

16. A drive control apparatus for a display panel according to claim 1, wherein the tolerable value is 10%

the maximum display luminance.

17. A drive control apparatus for a display panel according to claim 2, wherein the tolerable value is 10% the maximum display luminance.

18. A drive control apparatus for a display panel according to claim 4, wherein the tolerable value is 10% the maximum display luminance.

19. A drive control apparatus for a display panel according to claim 5, wherein the tolerable value is 10% the maximum display luminance.

20. A drive control apparatus for a display panel according to claim 1, wherein when the display luminance in the specified period of the one pixel is La, the display luminance in the specified period of the other pixel is Lb and the difference in luminance is $|La - Lb|$, the tolerable value is $0.015(La + Lb)$.

21. A drive control apparatus for a display panel according to claim 4, wherein when the display luminance in the specified period of the one pixel is La, the display luminance in the specified period of the other pixel is Lb and the difference in luminance is $|La - Lb|$, the tolerable value is $0.015(La + Lb)$.

22. A drive control apparatus for a display panel according to claim 1, wherein the tolerable value is a difference between display luminances displayed based on the luminance data of adjacent two levels.

23. A drive control apparatus for a display panel

according to claim 2, wherein the tolerable value is a difference between display luminances displayed based on the luminance data of adjacent two levels.

24. A drive control apparatus for a display panel according to claim 4, wherein the tolerable value is a difference between display luminances displayed based on the luminance data of adjacent two levels.

25. A drive control apparatus for a display panel according to claim 5, wherein the tolerable value is a difference between display luminances displayed based on the luminance data of adjacent two levels.

26. A drive control apparatus for a display panel according to claim 1, wherein the tolerable value is small when the luminance data is small and large when the luminance data is large.

27. A drive control apparatus for a display panel according to claim 2, wherein the tolerable value is small when the luminance data is small and large when the luminance data is large.

28. A drive control apparatus for a display panel according to claim 4, wherein the tolerable value is small when the luminance data is small and large when the luminance data is large.

29. A drive control apparatus for a display panel according to claim 5, wherein the tolerable value is small when the luminance data is small and large when the luminance data is large.

30. A drive control apparatus for a display panel according to claim 1, wherein the tolerable value is a quantity proportional to the power of the luminance data.

31. A drive control apparatus for a display panel according to claim 2, wherein the tolerable value is a quantity proportional to the power of the luminance data.

32. A drive control apparatus for a display panel according to claim 4, wherein the tolerable value is a quantity proportional to the power of the luminance data.

33. A drive control apparatus for a display panel according to claim 5, wherein the tolerable value is a quantity proportional to the power of the luminance data.

34. A drive control method for a display panel comprising the steps of:

generating a modulation clock which serves as a criterion for determining a pulse width of a modulation signal and has a frequency deviation to spread harmonics spectrum as compared to a virtual source clock of a constant frequency, the frequency deviation being so restricted that, if at least two pixels corresponding to two adjacent scanning wirings are displayed based on arbitrary same luminance data, a difference between a display luminance of one pixel in a specified period and a display luminance of the other pixel in the specified period is less than or equal to a tolerable value determined by the luminance data;

generating a modulation signal by modulating at lease a pulse width based on inputted luminance data in

synchronization with the modulation clock;

selecting a scanning wiring of the display panel; and

supplying the modulation signal to a modulation wiring of the display panel.

35. A drive control method for a display panel comprising the steps of:

generating a modulation clock which serves as a criterion for determining a pulse width of a modulation signal and has a frequency deviation to spread harmonics spectrum as compared to a virtual source clock of a constant frequency, the frequency deviation being so restricted that, if an arbitrary pixel is displayed based on arbitrary same luminance data, a difference between a display luminance in a specified period obtained by the virtual source clock and a display luminance in the specified period obtained by the modulation clock is less than or equal to a tolerable value determined by the luminance data;

generating a modulation signal by modulating at lease a pulse width based on inputted luminance data in synchronization with the modulation clock;

selecting a scanning wiring of the display panel; and

supplying the modulation signal to a modulation wiring of the display panel.

36. A drive control method for a display panel comprising the steps of:

generating a modulation clock which serves as a criterion for determining a pulse width of a modulation signal

and has a frequency deviation to spread harmonics spectrum as compared to a virtual source clock of a constant frequency;

converting a gradation of luminance data in order to compensate for changes in a display luminance level due to the frequency deviation;

generating a modulation signal by modulating at lease a pulse width based on inputted luminance data in synchronization with the modulation clock;

selecting a scanning wiring of the display panel; and

supplying the modulation signal to a modulation wiring of the display panel.